REMARKS/ARGUMENTS

Reconsideration and allowance in view of the following remarks are respectfully requested.

Applicant and the undersigned wish to thank Examiner Cecil for the courtesies extended during the interview of November 2, 2006. The arguments made during the interview are presented hereinbelow for the Examiner's further consideration.

Claims 1-8, 10, 11 and 17 -22 are now pending. Claims 1 and 11 have been amended above to recite even more particularly, as recited in previously presented claims 16 and 15, respectfully, that the fluid passage body is a fluid inlet of an injector.

Claim 1, 3, 10-11, 15-17, 19-20 and 22 were rejected under 35 USC 102(b) as being anticipated by Isozumi et al. Applicant respectfully traverses this rejection.

Conventionally, a filter for an injector has a plurality of holes that traditionally regulate fluid flow in the injector. In such a structure, when there is a large variation in dimension of the holes, there is a large variation in the injection property of the injector. Consequently, there is a large variation in the performance of both the engine and the vehicle. Indeed, the fuel injection property of an injector exerts a significant influence on the performance on both the engine and the vehicle. Regulation of fluid flow is thus one of the essential features of an injector.

As defined by claims 1 and 11, the tubular fluid passage defined between the filter section and the inner surface of the fluid passage body has a cross-sectional area which is equivalent to or smaller than the summation of cross-sectional areas of the holes of the filter section, so that fluid flow is regulated through the tubular fluid passage and not by the filter per se. As mentioned in the specification at page 11, lines 6-12, pressure drop through the filter 50 can be regulated precisely by precisely manufacturing the outer diameter d2 of the filter section 52 and the inner diameter D of the fuel inlet port 40. In this way, precise manufacturing of each small hole 53 in the

filter is not necessarily. Thus, performance variation of injector 1 can be easily regulated. This feature of the invention is significant to reduce variation in performance of the injector and the engine. In addition, as defined by claims 1 and 11, the filter section is integral with the closed end section. As understood from the disclosure, the closed end section is used for collecting debris.

Anticipation under Section 102 of the Patent Act requires that a prior art reference disclose every claim element of the claimed invention. See, e.g., Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 806 F.2d 1565, 1574 (Fed. Cir. 1986). While other references may be used to interpret an allegedly anticipating reference, anticipation must be found in a single reference. See, e.g., Studiengesellschaft Kohle, G.m.b.H. v. Dart Indus., Inc., 726 F.2d 724, 726-27 (Fed. Cir. 1984). The absence of any element of the claim from the cited reference negates anticipation. See, e.g., Structural Rubber Prods. Co. v. Park Rubber Co., 749 F.2d 707, 715 (Fed. Cir. 1984). Anticipation is not shown even if the differences between the claims and the prior art reference are insubstantial and the missing elements could be supplied by the knowledge of one skilled in the art. See, e.g., Structural Rubber Prods., 749 F.2d at 716-17.

In contrast to the claimed invention, Isozumi provides a filter used for a piston type high-pressure fuel pump, not for an injector. Furthermore, Isozumi fails to teach or describe a closed end section of the filter integral with the filtering section, much less a functional closed end section. In this regard, Isozumi appears to disclose that the entire side walls of his unit are formed as a mesh so that a closed end section, for example for collecting debris, is not defined by Isozumi.

In further contrast to the claimed invention, Isozumi teaches that the mesh filter provided as his filter side wall has square openings each defining one side which ranges from 50 μm to 200 μm. In this structure, the square openings are enlarged when compared with a conventional structure, in which one side of each square opening

would measure 30 μm (column 2, lines 4-5). The mesh design of Isozumi restricts the filter from clogging. In this regard, the feature of Isozumi is to define the size of each square opening and does not in any way relate to nor teach or suggest a regulation of fluid flow through a portion other than the square openings of his filter membrane. Clearly, then, the feature of Isozumi's disclosure is completely different from the feature defined by applicant's claims 1 and 11. Therefore, the invention is not anticipated by nor obvious from Isozumi.

Claims 2, 18 and 21 were rejected under 35 USC 103 as being unpatentable over Isozumi in view of JP '316. Applicant respectfully traverses this rejection.

JP '316 teaches a filter which consists of porous silica having a controlled pore diameter. As such, JP '316 teaches a filter that is a completely different composition and configuration than Isozumi. Indeed, not only does JP '316 relate to a porous silica filter as opposed to a open holed mesh filter as taught by Isozumi, but JP '316 provides a filter having a cylindrical shape which also differs from the conical design of Isozumi.

The Examiner asserts that it would be obvious to adopt the hemispherically shaped closed end of JP '316 in Isozumi. Applicant respectfully disagrees. Firstly, JP '316 does not teach a "hemispherically-shaped" closed end. In this regard, although JP '316 mentions that one end of the filter tube is sealed, there is no teaching that the sealed end is extensive enough so as to define a "hemispherically-shaped" closed end much less that there would be a reason to provide such a shaped end in Isozumi. Indeed, as noted above, Isozumi teaches no particular function of his closed end nor significance to the shape thereof. Likewise, JP '316 appears to have a rounded end simply because the filter is formed from porous silica that must be sealed at the end for the end to be closed. Because Isozumi does not relate to a porous silica structure, there is absolutely no reason whatsoever to reshape the end of Isozumi's filter to be hemispherical, much less to form the side walls thereof to define a constant cross-sectional area for the tubular passage way. Because the structural make up and

composition of each of these two filters is different, the skilled artisan would not piecemeal select isolated characteristics of JP '316 and incorporate them in Isozumi.

Section 103 does not allow the Examiner to engage in picking and choosing from the prior art only to the extent that it will support a holding of obviousness, while excluding parts of the prior art essential to the full appreciation of what the prior art suggests to one of ordinary skill in the art. In re Wesslau, 147 USPQ 391 (CCPA 1975).

As the CAFC has said, obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. ACS Hospital Systems v Montefiore Hospital, 221 USPQ 929, 933 (Fed. Cir. 1984). There must be a suggestion in the art relied upon to use what one reference discloses in or in combination with the disclosure of the other reference or references relied upon by the Examiner. In re Grabiak, 226 USPQ 870, 872 (Fed. Cir. 1986).

Thus, it is submitted that the skilled artisan would adopt Isozumi or JP '316 in the alternative and would not be motivated to adopt a piecemeal combination of their structures.

It is further respectfully noted that JP '316 fails to teach or describe any relationship between the cross-sectional area of the tubular fluid passage and the summation of cross-sectional areas of the pores/holes. Thus, JP '316 does not overcome the deficiencies of Isozumi noted above.

In summary, Isozumi and JP '316 do not motivate the skilled artisan to produce the feature of the presently amended claims 1 and 11 in which the tubular fluid passage regulates the fluid flow thereby enhancing performance of the injector. It is therefore respectfully submitted that claims 1 and 11 and the claims that depend therefrom are not anticipated by Isozumi and not obvious over Isozumi in view of JP '316

Claims 4-8 and 13 were rejected under 35 USC 103(a) as being unpatentable over Isozumi in view of Neuman. Applicant respectfully traverses this rejection.

As noted above, Isozumi provides a filter wherein a mesh defines the filtering side wall of the filter. The simple filter mesh has square openings and the focus of Isozumi is the appropriate size of the sides of such openings.

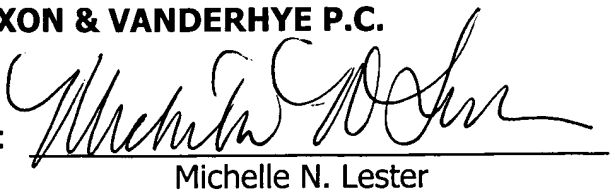
The reference to Neuman cited by the Examiner teaches shaped filter openings defined through a metal side wall. Because Isozumi provides a filter mesh for his filter and teaches in great detail the criticality the size of his filter mesh holes, it is respectfully submitted that it would not be unobvious for the skilled artisan to abandon Isozumi's invention and provide instead shaped bores as taught by Neuman. The Neuman shaped bores are not provided as a mesh, are not square in shape and there is certainly no teaching in Neuman of how shaped bores could be provided in a simple mesh of the type Isozumi discloses. It is therefore respectfully submitted that the skilled artisan would not modify Isozumi in view of Neuman, but would select one of these two structures in the alternative.

For all the reasons advanced above, reconsideration and withdrawal of the rejection based on Isozumi and Neuman is solicited.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance and an early Notice to that effect is earnestly solicited.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: 

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